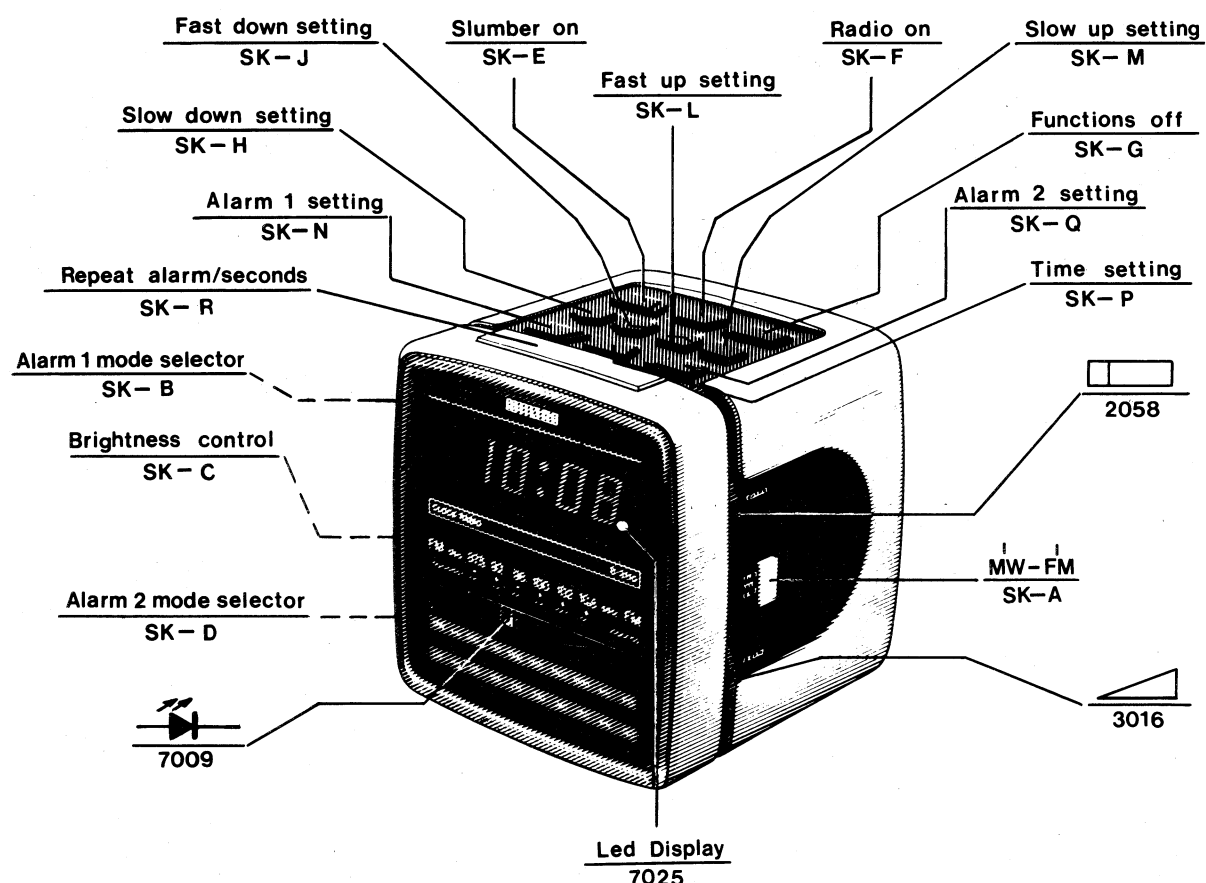


Service
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41C 113

Service Manual



IF-FM : 10.7 MHz
 : 220V 50Hz
 110V 60Hz (-/17)
 : 9V
 : 8 Ω 200MW ±1dB (d=10%)



"Pour votre sécurité, ces documents doivent être utilisés par des spécialistes agréés, seuls habilités à réparer votre appareil en panne".

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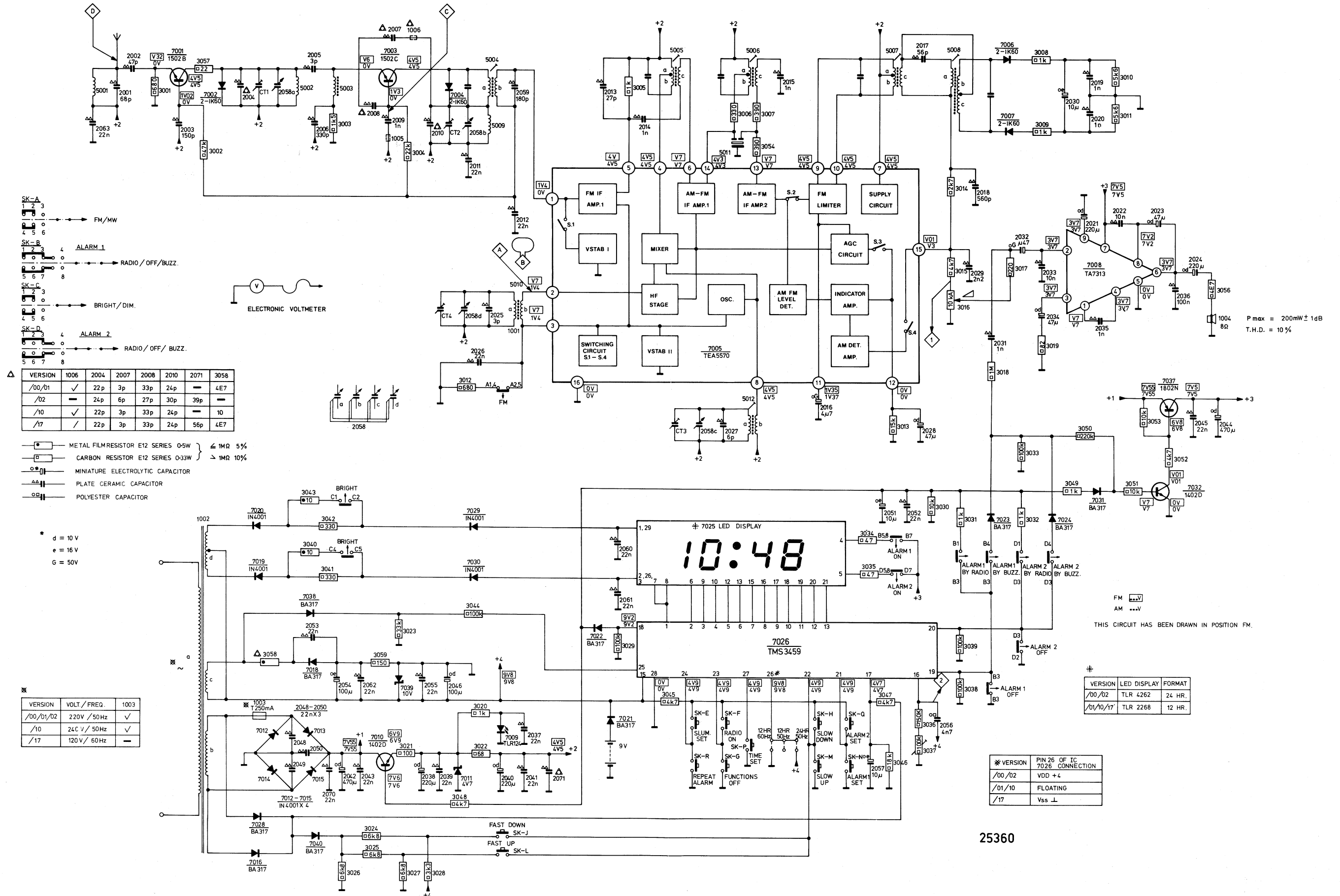
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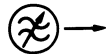
Pin	Signal	Pin	Signal
1	SAGDE4/AM	28	Vdd
2	SB4/PM	27	real-time set/dimmer
3	SC4/SE3	26	12hr50Hz/24hr50Hz/12hr60Hz
4	SBG3	25	50/60Hz input
5	SCD3	24	Slumber/repeat alarm
6	SAF3	23	on/off input
7	SAF2	22	time set
8	SBG2	21	alarm display select
9	SCD2	20	alarm 2 out
0	SE2/SE1	19	alarm 1 out
11	SBG1	18	radio out
12	SCD1	17	speed/power down
13	SAF1	16	CR osc
14	Colon	15	Vss

The diagram shows the timing for the TMS 3459N2. The top section displays 14 channels labeled A through COLON. Above the channels, the input signals are listed: A + D + E + G, B, C, E, B + G, C + D, A + F, E, B + G, C + D, E, E, B + G, C + D, A + F. The pulse widths for the channels are indicated by brackets: 10-HR (channels 1-3), HR (channels 4-6), 10-MIN (channels 7-10), MIN (channels 11-13), and COLON (channel 14). The bottom section shows the pin connections for the TMS 3459N2. The pins are numbered 15 through 28. The connections are: 15: +4 VSS, 16: CR OSC, 25: 50/60Hz INPUT, 18: RADIO OUT, 17: VSS +, 19: VSS +, 20: VSS +, 21: VSS +, 22: VSS +, 23: VSS +, 24: VSS +, 26: VSS +, 27: VSS +, 28: VDD -.

Pin	17	19	20	21	22	23	24	26	27
1	NORMAL	—	—	—	—	—	—	12HR 50Hz	LOCK RT/BRIGHT
2	—	—	—	ALARM 2 DISP/SET	FAST DOWN (AC)/SLOW DOWN (DC)	ON	SLUMBER	24HR 50Hz	LOCK RT/ DIMMER
3	POWER DOWN	ALARM 1 OFF	ALARM 2 OFF	ALARM 1 DISP/SET	FAST UP (AC)/SLOW UP (DC)	OFF	REPEAT ALARM	12HR 60Hz	SET ENABLE/BRIGHT

MISC.	5001		7001	7002	7028	7020	7038	5002	7012	5003	1005	1006	7039	7004	7029	5004	SK-J	5010	7009	7022	5005 SK-E 5011 SK-F 7005 5006 SK-H SK-Q 5007 5008 7006 7024 7031 7008 7037 7032 1004																			
	7040	1002	7016	7019	7018	1003	7013	7014	7015	7003	7010	7011	7030	SK-L	5009	1001	7021 7025 SK-R 7026 SK-G 5012 SK-P SK-M SK-N 7023 7007 2051 2052 2028 2017 2018 2032 2033 2030 2019 2035 2024 2045 2044																							
C.	2063	2001	2002	2003	2004		CT1	2058a	2005	2062	2008	2009	2010	CT2	2058b	2011	CT4	2058d	2025	2060	2013	CT3	2058c	2027	2015	2016	2051	2052	2028	2017	2018	2032	2033	2030	2019	2035	2024	2045	2044	
					2070	2042	2043	2048	2049	2050			2038	2039	2040	2041	2026	2037			2051	2014		2057																
R.	3001		3057	3002			3041	3043	3003	3059	3023	3004	3044	3012			3029	3005	3045			3006	3007	3054	3047	3034	3036	3039	3014	3015	3017	3008	3019	3050	3010	3053	3052	3056		
			3058				3048	3040	3042	3024			3022	3020													3046	3035	3037	3038	3016	3018	3009	3033	3019	3049	3011			
							3021	3026	3027	3025	3028																							3030	3031	3032	3051			

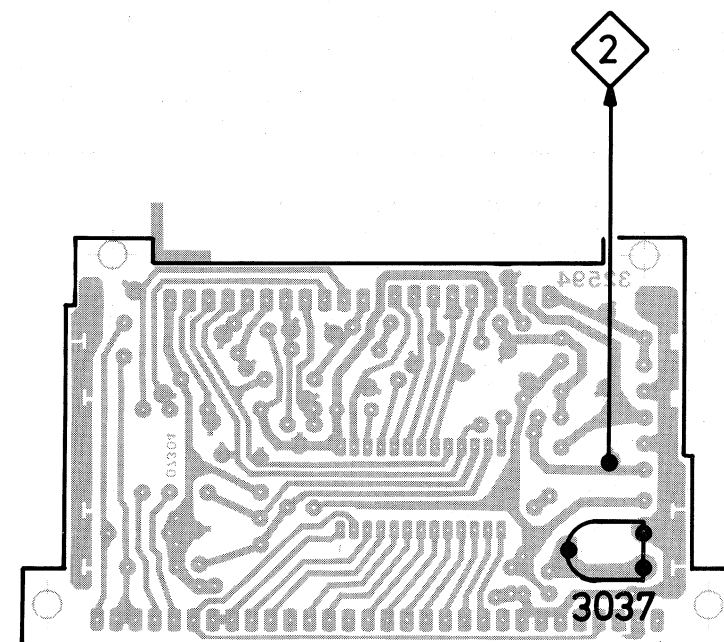
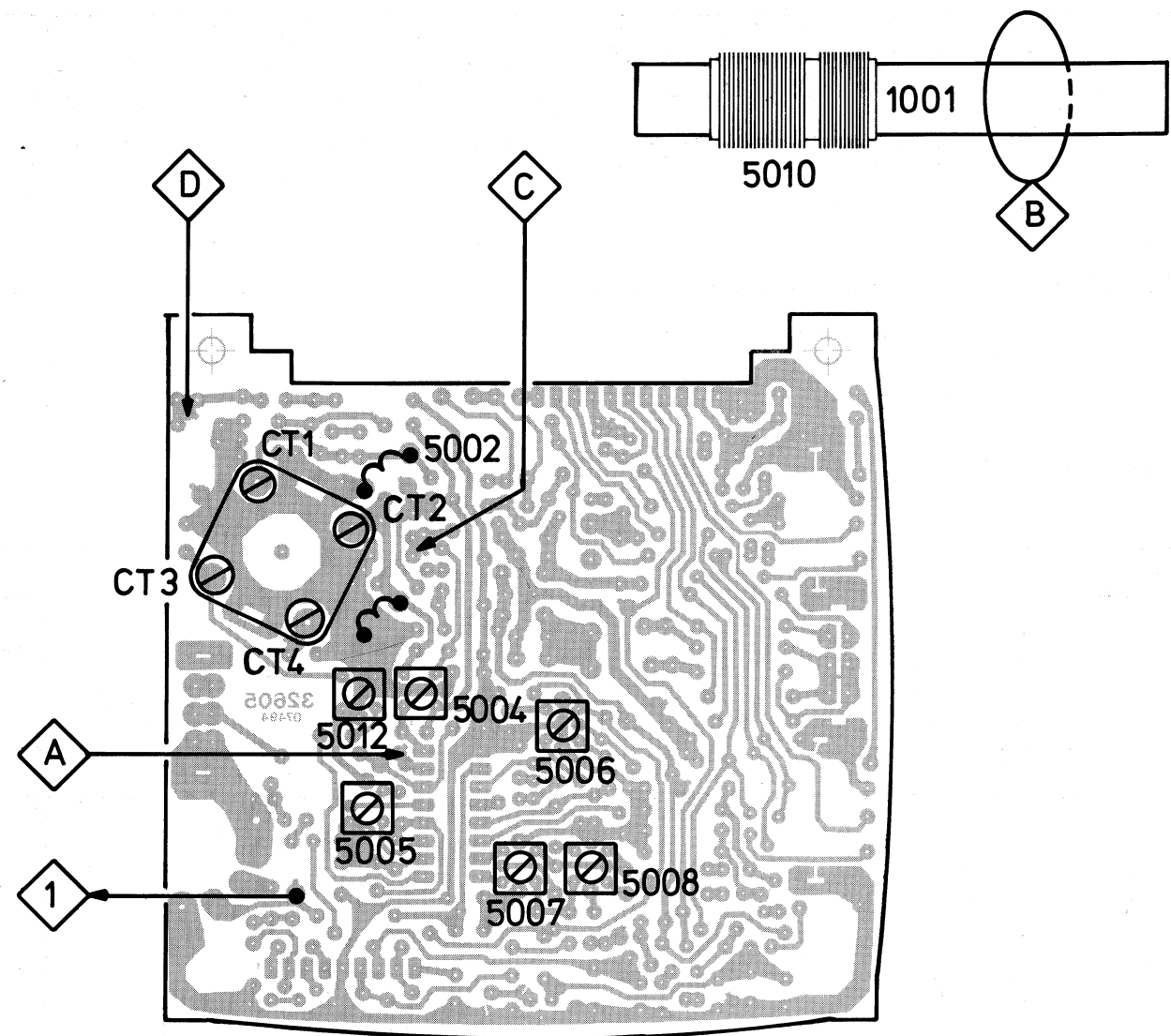


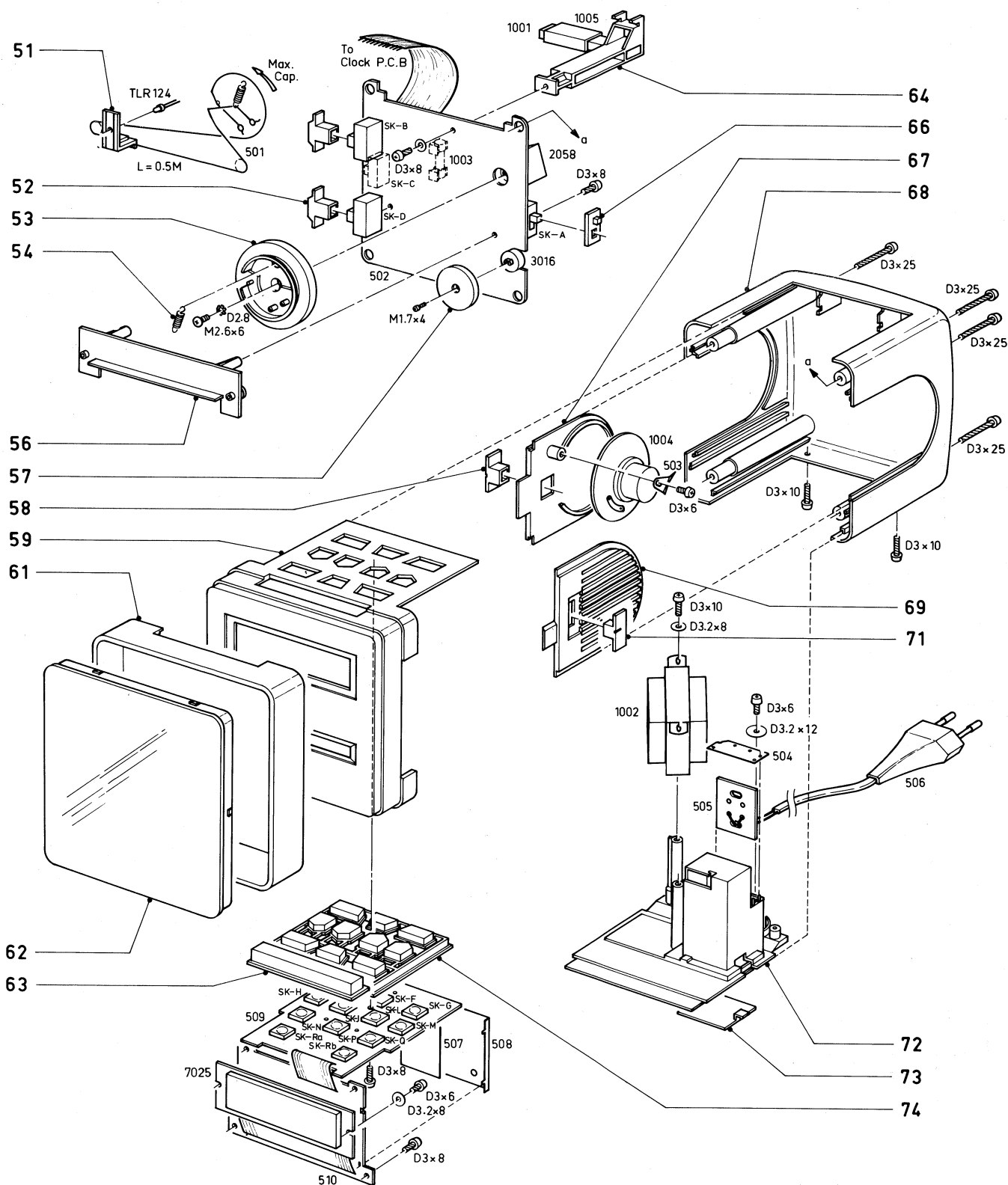
SK-A								
AM-IF								
MW	468 kHz ⁺ mod: 1 kHz 30%	 via 10 nF	min		5005 5006	 		max
AM-RF								
MW (525-1605 kHz)	512 kHz mod: 1 kHz 30%		max		5012	 		max
	1635 kHz mod: 1 kHz 30%		min		CT3			
	550 kHz mod: 1 kHz 30%				5010			
	1500 kHz mod: 1 kHz 30%				CT4			
FM-IF								
FM	10,7 MHz f=300 kHz (50 Hz)	 via 10 nF	min	5008	5004 5007	 		max
					5007 5008	 	symmetrical 	
FM-RF								
FM 87,5-108 MHz AFC off	⁺⁺ 86,5 MHz mod: 1 kHz f=22,5 kHz		max		5009	 		max
	⁺⁺ 109 MHz mod: 1 kHz f=22,5 kHz		min		CT2			
	88 MHz mod: 1 kHz f=22,5 kHz				5002			
	106 MHz mod: 1 kHz f=22,5 kHz				CT1			
Clock Frequency								
AC=0V, DC=9V					3037		 =2.4 kHz	

↑ Repeat

1. All trimmers should be set on mid-position before alignment.
2. Clock signal pick-up via 10 MΩ and 5 pF in series into 1 MΩ I/P impedance frequency counter. The MBB osc. signal pick-up probe (10 MΩ+ 5 pF) must be closed to IC7026 pin 16 to minimize the stray cap of the pick-up probe. Any stray capacitance of the pick-up probe should be taken into account to determine the actual alignment frequency.

⁺455 KHz for -/01/10/17/47
⁺⁺87.35-107.5 for -/02





-R- 			-C- 		
3016	VR, rotary 12KA	4822 100 20127	2058	Polyvaricon	4822 125 30041
3037	VR, preset 500KB	4822 100 20126			
-IC- 			-L- 		
7005	TEA5570	4822 209 81563	5003	FM IF trap	4822 153 10341
7008	TA7313AP	4822 209 80411	5004	FM IFT	4822 153 50211
7026	TMS3459	4822 209 50331	5005,5006	FM IFT	4822 153 10338
-TS- 			5007	FM ratio det. PTI	4822 156 40857
7001	1502B	4822 130 40947	5008	FM ratio det. dec.	4822 156 21227
7003	1502C	4822 130 44195	5009 (/17/47)	FM osc.	4822 157 51535
7010,7032	1402D	4822 130 40937	5010	AM ant.	4822 156 40885
7037	1802N	4822 130 41456	5011	Cer. filter 10.7M	4822 242 70249
-D- 			5012	AM osc.	4822 153 10299
7002,7004 } 7006,7007 }	2-1K60	4822 130 31232	-Miscellaneous-		
7009	TLR124	4822 130 31274	SK-A,SK-C	Band/Dimmer sw.	4822 277 20696
7011	BZX79C-4V7	4822 130 34174	SK-D,SK-B	Alarm select. sw.	4822 277 20764
7012-7015 } 7019,7020 } 7029,7030 }	1N4001	4822 130 31438	SK-E,SK-F } SK-G,SK-H } SK-J,SK-L } SK-M,SK-N } SK-P,SK-Q } SK-Ra } SK-Rb }	Bubble sw.	4822 278 90433
7016,7018 } 7021-7024 } 7028,7031 } 7038,7040 }	BA317	4822 130 30847	1001	Ferrite bar	4822 526 10176
7025	TLR4262	4822 130 90211	1002	Trans. EI-35	4822 146 40353
7025 (/17/47)	TLR2268	4822 130 90216	1002 (/17/47)	Trans. EI-35	4822 146 40359
7039	BZX79C-10V	4822 130 34297	1004	Spk. 57MM 8 Ω	4822 240 30205

GB

Safety regulations require that the set be restored to its original condition and that parts which are identical with those specified, be used.

NL

Veiligheidsbepalingen vereisen, dat het apparaat bij reparatie in zijn oorspronkelijke toestand wordt teruggebracht en dat onderdelen, identiek aan de gespecificeerde, worden toegepast.

F

Les normes de sécurité exigent que l'appareil soit remis à l'état d'origine et que soient utilisées les pièces de rechange identiques à celles spécifiées.

GB

Because, generally speaking, MOS IC's are very sensitive to overload and too high voltages, measurements should be carried out with greatest possible care.
For further instructions, see the directions enclosed in the separate IC-packages.

F

Parce qu'en général, les IC MOS sont très sensibles à la surcharge et à des tensions trop élevées, il faudra procéder aux mesures avec le plus grand soin.
Pour plus de détails, voir les instructions accompagnant l'emballage des IC.

I

Dato che gli IC MOS sono molto sensibili alla sovracarica e alle tensioni troppo alte, occorrerà procedere alle misure con particolare cautela.
Per altri particolari riferirsi alla istruzioni comprese nell'imballaggio di ogni IC.

D

Bei jeder Reparatur sind die geltenden Sicherheitsvorschriften zu beachten. Der Originalzustand des Geräts darf nicht verändert werden; für Reparaturen sind Original-Ersatzteile zu verwenden.

I

Le norme di sicurezza esigono che l'apparecchio venga rimesso nelle condizioni originali e che siano utilizzati i pezzi di ricambio identici a quelli specificati.

NL

Omdat MOS IC's in het algemeen zeer gevoelig zijn voor overbelasting en te hoge spanning dient bij het meten de grootst mogelijke zorgvuldigheid in acht genomen te worden. Zie voor verdere instructies de bijsluiter in de verpakking van de IC's.

D

Da MOS IC's im allgemeinen sehr empfindlich gegen Überbelastung und zu hohe Spannung sind, muss man beim Messen äusserst vorsichtig vorgehen.
Für weitere Weisungen siehe den beigefügten Zettel in der Verpackung der IC's.